July 19, 2011

Received & inspected

JUL 25 2011

FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

John T. Reilley, PLS

Professional Land Surveyor

(icensed in New Jersey and P∉nnsylvania

No. of Copies recid\_ LISTABODE

# State of Kansas

Senate Chamber



Office of Democratic Leader

STATE CAPITOL, ROOM 345-S TOPEKA, KANSAS 66612 (785) 296-3245 FAX (785) 296-0103

COMMITTEE ASSIGNMENTS

VICE-CHAIRMAN: CONFIRMATION OVERSIGHT

RANKING MINORITY MEMBER: EDUCATION

INTERSTATE COOPERATION MEMBER: LABOR EDUCATION CENTER

LEGISLATIVE COORDINATING

LEGISLATIVE POST AUDIT STATE FINANCE COUNCIL WORKERS COMPENSATION FUND OVERSIGHT PENSIONS, INVESTMENTS

AND BENEFITS TRANSPORTATION ASSESSMENT AND TAXATION

LEGISLATIVE HOTLINES

1-800-432-3924 TTY (785) 296-8430

July 19, 2011

Ms. Marlene H. Dortch, Secretary **Federal Communications Commission** 445 12th Street SW Washington, DC 20554

ANTHONY HENSLEY

STATE SENATOR, NINETEENTH DISTRICT

SHAWNEE, DOUGLAS & OSAGE COUNTIES

HOME ADDRESS:

2226 S.E. VIRGINIA AVENUE

TOPEKA, KANSAS 66605-1357

(785) 232-1944-HOME

E-MAIL

ANTHONY.HENSLEY@SENATE.KS.GOV

Re: Comment Deadlines Established Regarding the LightSquared Technical Working Group Report, IB Docket No. 11-109

Received & Inspected

JUL 25 2011 FCC Mail Room

Dear Ms. Dortch:

On May 22, 2011, a deadly storm devastated the town of Reading, Kansas. Natural disasters like this remind us why emergency responders need the best technological resources available to protect life and property. Wholesale provider LightSquared's proposed new wireless broadband network will provide that technology, which is why I am writing in support of them.

Our firefighters, EMTs, police officers and other emergency providers must to be able to communicate with each other during times of crisis. When Hurricane Katrina wreaked havoc on the Gulf Coast, I know that FEMA and state officials in Louisiana relied on LightSquared's satellite communication technology to coordinate rescue and rebuilding efforts when ground-based telecom networks were inoperable.

In addition to communication technology, LightSquared will be the first to bring high-speed Internet to wireless devices in many rural areas as well as much-needed investment in the U.S. economy through the creation of 15,000 jobs a year during the build-out of its network.

The best way to handle a disaster is by preparing for it ahead of time. A state-of-the-art wireless broadband system like LightSquared's could be of enormous help the next time an unforeseen crisis hits Kansas or other parts of the nation including Tuscaloosa, Alabama or Joplin, Missouri.

I urge the Commission to resolve any outstanding technical issues and support LightSquared's deployment.

Sincerely,

Anthony Hensley

Kansas Senate Democratic Leader

No. of Copies recid LETABODE

## RIGG ASSOCIATES, P.A.

### **ENGINEERS \* SURVEYORS \* PLANNERS**

1000 Maple Avenue, Glen Rock, N.J. 07452 Tel. (201) 445-0053 Fax (201) 445-6526 E-mail: info@riggassociates.com www.RiggAssociates.com

Received & Inspected

JUL 25 2011 FCC Mail Room

July 20, 2011

11-109

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the lowpower GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity. The second was a second of the sec

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology. Section of the section of the section of

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference. emility and gan ingress,

THE REPORT OF THE PARTY OF THE

in the action as a superior of the contraction of t

and the second of age of the second

(a) The second of the secon · Mark that is the state of the approximation of the state of the sta

Stephen D. Rigg, P. L. S.

N.J. Lic. No. GS43263

No. of Capies 160 3 List A B C D E
\\RIGG\RedirectedFolders\srigg\Desktop\chairman ltr.doc and the second of the second o

The State of the State of the State of



### CONSULTING ENGINEERS • SURVEYORS • PLANNERS • LANDSCAPE ARCHITECTS

# Keller & Kirkpatrick, Inc.

化电子 医二氯基甲基二苯

Robert C. Kirkpatrick, P.E., L.S., P.P., Founder Matthew L. Martini, P.L.S., P.P., President

Robert E. Bratt, P.E., P.P. George P. James, P.E., P.P.

Werner A. Mall, P.L.S. Arthur J. Elias, P.E., P.P. Michael J. Manning, P.L.S., P.P. Edward J. Formichella, P.L.S, P.P. James K. McCormick, P.L.S., P.P. Timothy J. McDonald, P.L.S..

Donald A. Scott, Jr., P.E., P.P. Paul M. Szmaida, C.L.A. William E. Thomas, P.L.S., P.P.

July 19, 2011

Received & Inspected

JUI 25 2011 **FCC Mail Room** 

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission ("FCC") granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System ("GPS") receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

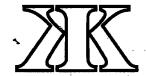
The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Mailing Address: 301 Gibraltar Drive, Suite 2A, Morris Plains, NJ 07950-3409 Tel: (973) 377-8500 • Fax: (973) 887-0925 • Web: www.kellkirk.com

No. of Copies (ac LISTABODE



# Keller & Kirkpatrick, Inc.

Robert C. Kirkpatrick, P.E., L.S., P.P., Founder Matthew L. Martini, P.L.S., P.P., President

Robert E. Bratt, P.E., P.P.
Arthur J. Elias, P.E., P.P.
Edward J. Formichella, P.L.S, P.P.
George P. James, P.E., P.P.

Werner A. Malf, P.L.S. Michael J. Manning, P.L.S., P.P. James K. McCormick, P.L.S., P.P. Timothy J. McDonald, P.L.S.. Donald A. Scott, Jr., P.E., P.P. Paul M. Szmaida, C.L.A. William E. Thomas, P.L.S., P.P.

Received & Inspected

a- nii -2 5

FCC Mail Room

July 19, 2011

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission ("FCC") granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System ("GPS") receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

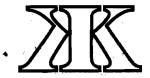
The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Werner A. Mall. P.L.S.

SHE SHOWER TO THE REST.



# Keller & Kirkpatrick, Inc.

Robert C. Kirkpatrick, P.E., L.S., P.P., Founder Matthew L. Martini, P.L.S., P.P., President

Robert E. Bratt, P.E., P.P. Arthur J. Elias, P.E., P.P. Edward J. Formichella, P.L.S, P.P. George P. James, P.E., P.P. Werner A. Mall, P.L.S. Michael J. Manning, P.L.S., P.P. James K. McCormick, P.L.S., P.P. Timothy J. McDonald, P.L.S.

Donald A. Scott, Jr., P.E., P.P. Paul M. Szmaida, C.L.A. William E. Thomas, P.L.S., P.P.

July 19, 2011

Received & Inspected

JUL 25 2011 FCC Mail Room

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission ("FCC") granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System ("GPS") receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Michael J. Manning, P.L.S., P.P.

Received & Inspector

JUL 25 2011

FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Dennis M. Miller - Property Line Surveyor No. 579)

LISTABODE

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554 Received & Inspected

JUL 25 2011

FCC Mail Room

Dear Chairman Genachowski:

, r , , , ,

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

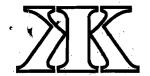
The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economic disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Jøseph E. Romano, P.L.S.

and the second s



# Keller & Kirkpatrick, Inc.

Robert C. Kirkpatrick, P.E., L.S., P.P., Founder Matthew L. Martini, P.L.S., P.P., President

Robert E. Bratt, P.E., P.P. Arthur J. Elias, P.E., P.P. George P. James, P.E., P.P.

Werner A. Mall, P.L.S. Michael J. Manning, P.L.S., P.P. Edward J. Formichella, P.L.S, P.P. James K. McCormick, P.L.S., P.P. Timothy J. McDonald, P.L.S..

Donald A. Scott, Jr., P.E., P.P. Paul M. Szmaida, C.L.A. William E. Thomas, P.L.S., P.P.

July 19, 2011

Received & Inspected

JUL 25 2011 FCC Mail Room

Mr. Julius Genachowski, Chairman **Federal Communications Commission** 445 12<sup>th</sup> Street SW Washington, DC 20554

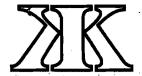
### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission ("FCC") granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System ("GPS") receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.



## Keller & Kirkpatrick, Inc.

Robert C. Kirkpatrick, P.E., L.S., P.P., Founder Matthew L. Martini, P.L.S., P.P., President

Robert E. Bratt, P.E., P.P. Arthur J. Elias, P.E., P.P. Edward J. Formichella, P.L.S., P.P. ' James K. McCormick, P.L.S., P.P. George P. James, P.E., P.P.

Werner A. Mall, P.L.S. Michael J. Manning, P.L.S., P.P. Timothy J. McDonald, P.L.S..

Donald A. Scott, Jr., P.E., P.P. Paul M. Szmaida, C.L.A. William E. Thomas, P.L.S., P.P.

July 19, 2011

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12th Street SW Washington, DC 20554

Received & Inspected

JUL 25 2011 FCC Mail Room

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission ("FCC") granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System ("GPS") receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

James K. McCormick, P.L.S., P.P.

Received & Inspected



## MICHAEL G. WILMES, L.S. 1752 SAYBROOK ROAD P.O. BOX 14 HADDAM, CT 06438-0014 860-345-2713

JUL 2 5 2011 FCC Mail Room

July 19, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in the states of Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, New York and New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc.

Sa. 5		scii (
ListA	BODE	

# AMERICAN

## ENGINEERING & SURVEYING, Inc.

July 19, 2011

Received & Inspected

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

JUL 25 2011

FCC Mail Room

Re:

LightSquared, LLC, 4G-LTE wireless broadband network

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Yours sincerely,

Timothy G. Granger

Vice-President

Professional Land Surveyor, License Number 21206

LEIABGDE

224 EAST MAIN STREET

**ELKTON** 

MD

21921

(410) 398-5000 tel

(410) 398-9615 fax

# **AMERICAN**

Received & Inspected

JUI 25 2011

TOO Mail HOOM

# Engineering & Surveying, Inc.

July 20, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

#### Chairman Genachowski:

As a licensed Professional Land Surveyor in Delaware and Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology will likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Delaware, but also for the United States as a whole. The members of the Delaware and Maryland Association of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

, G 17

Respectfully.

Stanly P. Granger, Jr. Prof Land Surveyor 224 East Main Street Elkton, MD 21921 410.398.5000 tel 410.398.9615 fax

www.americanengineering.net

spgranger@juno.com

Consulting – Civil Engineering – Land Surveying – Site Planning 224 East Main Street Elkton, MD 21921 410 398 5000 Tel – 410 398 9615 Fax

No. of Caples red's 1

## J. A. RICE, INC.



P.O. Box 1288

Received & Inspected lersville, MD 21108
410-987-4286
FAX 410-987-3633

JUL 25 2011

FCC Mail Room

July 19, 2011

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

J.A. RICE, INC.

Malcolm R. Archer-Shee Licensed Surveyor

molala R. links

No. of Copies accumulation A B C C E

Edward Jones 1106 West Church St Livingston, TX 77351 (93€) 327-3323 Jack E. Haire Financial Advisor

Received & Inspected

JUL 25 20 Edward Jones
FCC Mail Room

July 18, 2011

Federal Communications Commission 445 12th St., SW Room TWA325 Washington, DC 20554

Re: Comments regarding FCC IB Docket No. 11-109, Interference with GPS Signals

Dear Federal Communications Commission:

As you consider the conditional approval for LightSquared, I write to ask you to preserve the integrity of the nation's GPS system.

Last year, the federal government shut down the Loran navigation system, making recreational mariners solely reliant on GPS for all electronic navigation needs. Like so many other GPS users around the country, GPS is now integrated into our daily outings, and we look to the FCC to protect the integrity of the GPS signal.

In the June 30th report the navigation sub-team concluded "that all phases of the LightSquared deployment plan will result in widespread harmful interference to GPS signals and service and that mitigation is not possible."

Please do NOT approve the LightSquared broadband deployment.

Jack Haire

Sincerely,

No. of Copies rec'd 0

July 19, 2011

Received & Inspected

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554 JUL 25 2011 FCC Mail Room

### Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely

Robert C. Buckley, Jr., L.S. (VA 1/528, MD Property Line Surveyor 389)

Central Virginia Survey Manager

Rice Associates 308G Turner Road Richmond, VA 23225 804.674.9723

> No. of Copies red's 0 List A B C D E

Civil Engineers • Land Planning • Land Surveyors

15 Washington Street Cambridge, Maryland 21613 Tel 410-221-0818 Fax 410-476-9942

117 Bay Street P.O. Box 1767 Easton, Maryland 21601 Tel 410-822-8003 Fax 410-822-2024

354 Pennsylvania Avenue Centreville, Maryland 21617 Tel 410-758-2095 Fax 410-758-4422

Mr. Julius Genachowski Chairman **Federal Communications Commission** 445 12th Street SW Washington, DC 20554

Received & Inspected

JUL 25 2011 FCC Mail Room

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity. A PROPERTY OF STATE OF THE STAT

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

The state of the state of the State of

The loop of the state of the second

The open the first say by the party of the total of the contraction of

ing the state of the second and the second sections of the second sections and the second sections of the section section section section sections o Sincerely,

Tom Lane

Registered Property Line Surveyor

LISTABCOE

THE THE RESERVE OF THE STATE OF

# Lane Engineering,

Civil Engineers • Land Planning • Land Surveyors

15 Washington Street Cambridge, Maryland 21613 Tel 410-221-0818 Fay 410-476-9942

117 Bay Street P.O. Box 1767 Easton, Maryland 21601 Tel 410-822-8003 Fax 410-822-2024

354 Pennsylvania Avenue Centreville, Maryland 21617 Tel 410-758-2095 Fax 410-758-4422

Mr. Julius Genachowski Chairman **Federal Communications Commission** 445 12<sup>th</sup> Street SW Washington, DC 20554

Received & Inspected

JUI 25 2011

FCC Mail Room

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Jeff Hurbard Property Line Surveyor 1995 (2010) The Control of the a servición (Est. 15 runtio de scrotra meno de vintanco destinuo ves y vasione in tadante y

> 🛖 en er ubble Construction of the second of the second

See to make where the interpretation of the property of the pr Mediatria mileranti il OPS il Mediatria il morti il

www.lancengineering.com

a Supply cent of Differus, FAA, DRS, NASA, DOY, DOY, DOUGHT CORRESPONDED

I WE THAT HE STATE WE THEN

mail@laneengineering.com



# Received & Inspected

# JUL 25 2011 FCC Mail Room

ESTABLISHED 1945

July 19, 2011

Mr. Julius Genachowski Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signals. Furthermore, each mobile phone using LightSquared's wireless service would potentially be a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Brian Baillargeon, L.S.

Brian B. Brilley



### A CENTER FOR HOLISTIC HEALTH

Received & Inspected
JUL 25 2011
FCC Mail Room

July 14, 2011

Ms. Marlene Dortch, Secretary Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, D.C. 20554

Re: Comment Deadlines Established Regarding the LightSquared Technical Working Group Report, IB Docket No. 11-109

Dear Ms. Dortch:

I am writing as a health care professional to ask the Commission's help to bring reliable broadband Internet and cell phone coverage to rural communities.

Recently I was in Grand Marais, Minnesota, which is about 110 miles northeast of Duluth on the shore of Lake Superior, for a long weekend with friends. Grand Marais is a popular summer vacation spot that attracts many residents from the Twin Cities. During the course of the weekend I needed to contact several patients and I was unable to do so for four days. I was also unable to check in on my daughter, who suffers from epilepsy. I did not like this, especially when there is an option available to provide cell coverage in isolated areas like Grand Marais.

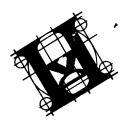
I understand that the Commission is currently reviewing an application by LightSquared to turn on a nationwide satellite network that will address this lack of access. This is good news, since the complete lack of cell coverage is a problem for health care professionals who need to maintain contact with their patients while visiting vacation spots.

I encourage the Commission to move without delay to expand cell and wireless Broadband coverage in rural America by approving LightSquared's application.

Sincerely,

Deborah S. Simmons, PhD, LMFT

www.pih-mpls.com • info@pih-mpls.com



## H OPEWELL VALLEY ENGINEERING, PC

Received & Inspected

July 20, 2011

JUL 25 2011 FCC Mail Room

Mr. Julius Genachowski, Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Mr. Genachowski,

I wanted to share my concerns about the approval being granted to LightSquared, LLC to build a 4G-LTE wireless broadband network.

As a licensed land surveyor in New Jersey, Pennsylvania and Delaware, I have serious concerns about the negative impact this will have on my ability to function with survey grade GPS. It appears this new network will generate interference with GPS signals, and impede and possibly prevent the use of GPS as we now use it. Please do not allow this to happen.

I've attached a copy of a letter received from NJSPLS, which provides greater detail of the impact of this. My letter is intended to provide some insight of the real time, practical problems and implications this program will create in the practice of my profession.

Surveyors have historically used points found on the ground, known as monuments. These reference points guide us in the determination of property line locations, elevation benchmarks and coordinates. Many of these are often disturbed, or lost to construction activities and not replaced.

With GPS satellites, these are now "monuments in the sky", which we use every day in determining locations and elevations for everything from boundary & topographic surveying, flood elevation determinations and other related activities. These are utilized not only for our benefit, but for the direct benefit of the people we serve.

I hope I have provided you with an overview of the negative impact we anticipate if this program proceeds. Please consider these as you move forward in deliberating this situation: The side of the line is a feeting character of the sign of

Very truly yours, ann i gigar i eil an lei geberger, dagag rolcha yen i ri ES, PP; CP on the descriptions of the second section of the second Be to defend the property of the second of the property of

Paris of the serious

## **SAMPLE NJSPLS LETTER TO FCC:**

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in New Jersey, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for New Jersey, but also for the United States as a whole. The members of the New Jersey Society of Professional Land Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

# Thomas L. Yager & Associates

Civil Engineers - Land Surveyors - Planners

11-109



10 Gray Rock Road Clinton, New Jersey 08809 (908) 735-9508 (908) 735-4547 FAX

**Received & Inspected** 

July 20, 2011

JUL 25 2011

FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12th Street SW Washington, DC 20554

Dear Mr. Genachowski:

RE: LIGHTSQUARED, LLC PROPOSAL

FCC FILE SAT-MOD-20101118-00239

I have written to Senators Lautenberg and Menendez, who represent the New Jersey district in which I have lived for the past forty (40) years. My concern then, and even more so now, is lightSquared, LLC, proposal to build a nationwide 4G-LTE wireless broadband network.

As you know, there has been a LOT of money spent by LightSquared (LS) for research and development of their proposed network. I am aware they have satisfied some factions that were opposed to the network and the construction of 40,000 land-based broadcast stations.

It is unfortunate that LS may get the approval to construct their network at the expense of others. The others being land surveyors and users of high precision GPS receivers and equipment. I am in favor of technology when it is a replacement or improvement to a piece of equipment or method of operation. Presently the network, as proposed, will render GPS equipment useless or unreliable when survey fieldwork is being completed near one of the broadcast stations or a mobile phone.

I am a land surveyor who has purchased high precision receivers to complete projects for private, municipal, county, and state agencies. Today a surveyor must use GPS equipment to not only create maps for clients, but also for construction stakeout, wetlands delineation, environmental investigations, geodetic control for Geographic Information Systems (GIS), forensic surveying, etc. My point being, the GPS survey method and equipment is not antiquated and should not be pushed aside to benefit others when so many individuals depend on the existing GPS survey practice.

No. of Copies reold 0

Mr. Julius Genachowski Page 2 July 20, 2011

Fellow professionals and GPS manufacturers, as well as myself, have spent millions or possibly billions of dollars to own and perfect the use this equipment. To use this equipment in an "unreliable" condition caused by the LS network is an injustice to the Professional Land Surveyors in the United States of America.

Please reject the LightSquared LLC application and the present proposal until such time as they prove there will be no interference to GPS equipment that has been around longer than their proposed network. I trust you and your committees will make the right decision to protect a profession that goes back to Presidents Washington, Lincoln, and Jefferson.

Very truly yours,

Thomas L. Yager, P.I.S., P.P.

NJ and PA Professional Land Surveyor

TLY/jwy cc: NJSPLS

JUL 2 5 2011 FCC Mail Room

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Delaware, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Delaware, but also for the United States as a whole. The members of the Delaware Association of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely.

H. Scott Peterson, PLS

No. of Copies rapid 0 List A B C D E



# Gerhold, Cross & Etzel, Ltd.

Registered Professional Land Surveyors • Established 1906

Suite 100 • 320 East Towsontown Boulevard • Towson, Maryland 21286 Phone: (410) 823-4470 • Fax: (410) 823-4473 • www.gcelimited.com

Received & Inspected

JUL 2 5 2011 FCC Mail Room

11-109

Mr. Julius Genachowski Chairman Federal Communications Commission 445 12<sup>th</sup> Street SW Washington, DC 20554

Dear Chairman Genachowski:

As a licensed Professional Land Surveyor in Maryland, I must express serious concerns regarding the Federal Communications Commission (FCC) granting LightSquared, LLC conditional approval to build a nationwide 4G-LTE wireless broadband network (FCC File No. SAT-MOD-20101118-00239). Early testing by GPS technology leaders, Garmin and Trimble Navigation, demonstrated that LightSquared's technology would likely interfere with Global Positioning System (GPS) receivers, degrading their performance in the best case scenario and completely jamming GPS receivers in the worst case scenario.

The Department of Defense, FAA, DHS, NASA, DOI, DOT, DOC, and the Professional Land Surveying and Engineering professions, have all expressed serious reservations in regards to this plan by LightSquared, LLC to build 40,000 ground stations in the U.S. that could cause widespread interference to GPS signals. This network of ground stations will transmit signals within the L-band frequency immediately adjacent to the GPS L1 frequency at more than one billion times the strength of the low-power GPS signal from space. Furthermore, each mobile phone using LightSquared's wireless service would potentially become a portable GPS jamming device by jamming GPS receivers in its immediate vicinity.

High-precision GPS equipment used by Land Surveyors and other geomatics professionals costing thousands of dollars per receiver would be more adversely affected than the consumer GPS devices given their inherent design. Literally, tens of thousands of high-precision GPS receivers are used in the United States. GPS technology has transformed the way we build and manage our infrastructure, adding a tremendous level of efficiency to the design, construction, and maintenance of roads, bridges, commercial properties, residential subdivisions, parks, farms, golf courses, etc. GPS has become an essential tool for design professionals and it is imperative that these GPS signals are not jeopardized by broadband technology.

	<b>A</b>
No. of Copies no	<u> </u>
LUADODE	

This situation has the potential of becoming a tremendous public safety issue and an economical disaster not only for Maryland, but also for the United States as a whole. The members of the Maryland Society of Surveyors urge you to reject the LightSquared application until such time that all tests conclusively demonstrate there is no risk of interference.

Sincerely,

Edward F. Deiaco-Lehr

Principal,

Gerhold Cross & Etzel, Ltd.